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The Effects of an Action Plan, Staff Training, Management Support and Monitoring on Restraint Use and Costs of Work-Related Injuries

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Background Dignity and respect are at the foundation of good care and effective treatment planning and are guiding service principles. The use of physical restraints is contrary to treatment with dignity and respect. Because of the numerous risks to clients and employees associated with the use of physical restraints, an innovative plan was implemented to minimize the use.
Method Information was gathered to obtain a clear understanding of the employees' feelings about the initiative to minimize physical restraint. Training was provided regarding philosophical issues as well as how to utilize a new tool/procedure to keep everyone safe during aggressive outbursts. Presence by the management team was increased to support employees and encourage newly trained techniques. Finally, a formal system of processing was put in place to learn from each restraint in order to prevent the situation in the future.
Results The Winchester Region reduced the use of physical restraint by 99.4% and client-induced employee injuries by 37.7%.
Conclusions We drastically reduced physical restraints, staff injuries and created a safer place to work.

Keywords: costs, restraint reduction, safety, staff training

Introduction

Minimizing the use of restraints is a key goal for all services for people with intellectual disabilities. Safe restraint reduction has been recognized by other respected healthcare and educational organizations. The Substance Abuse and Mental Health Services Administration has a vision to reduce and ultimately eliminate the use of seclusion and restraint for all age groups in institutional and community-based behavioural health care settings (Bullard *et al.* 2003). In addition to the risk of bodily harm, a number of adverse psychological effects are associated with physical interventions, such as feelings of dehumanization, withdrawal, agitation, depression (Bullard *et al.* 2003), trauma and retraumatization (National Technical Assistance Center for State Mental Health Planning, 2003).

Previous research has reported effective programmes to reduce restraint use with people with intellectual disabilities on a large scale; however, none have reported staff safety data. This is a key question, since reduction of restraint could result in increased staff injuries. This paper investigated the effects of a multi-component package to reduce the use of physical restraint and its effects on staff days lost and replacement costs because of work-related injuries.

Methods

Participants and setting

Over the course of this initiative Grafton's Winchester facility served approximately 75 children and 43 adults on a given day in both the day school and the residential programme. There were both males (71%) and females (29%). The children served range in age from 7 to 21 years and had varying levels of Autism and/or intellectual disabilities along with concurrent psychiatric conditions and significant behavioural challenges. In the student population, 24% had profound or severe

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intellectual disabilities, 43% had moderate to mild intellectual disabilities, and for 33% their level of intellectual disabilities was unspecified. Adults served range in age from 18 to 68 years and had varying levels of intellectual disabilities along with concurrent psychiatric conditions and some degree of behavioural challenges. In the adult population, 42% had profound to severe intellectual disabilities, 40% had moderate to mild intellectual disabilities and for 18% their level of intellectual disabilities was unspecified. Clients supported in the 21 community-based group homes and the two school sites often lacked safety awareness and displayed severe aggressive behaviours requiring 24-h residential support.

This initiative also involved every employee in the Winchester facility. There were approximately 250 employees of which 75% were Direct Support Professionals. The year 2008 marked the organization's 50th year of service. Over the years, various de-escalation strategies had been utilized. When those failed, physical restraint was used to maintain safety in emergency situations.

Grafton's initiative began in the summer of 2004, when Grafton's new Chief Executive Officer (CEO) issued a mandate: minimize restraint without compromising employee and client safety. Each regional facility was challenged with creating an individual, facility-specific plan to minimize restraint. Employees at all levels, direct care staff to top level executive management, embraced the mandate, understood the philosophy and immediately set to work on this defining objective. This quality improvement initiative not only focused on the importance of minimizing restraint but also ensuring that everyone was safe. Safety of employees might also result in lower workers' compensation costs and overall organizational financial management. However, previous research had not focused on the positive gains to the financial stability of an organization because of the reduction of restraints. Prior to the initiative, the Winchester facility employed 260 physical restraints totalling approximately 3800 min during a 1-month period in 2003.

Procedure

A four-component intervention package process was utilized which included a 'reporter on the street', staff training, increased management support, and a formal system of processing and monitoring restraints. Components were implemented simultaneously and some were implemented more than once. The study took place over a 4-year period from Fiscal years 2005 to 2008.

First, information detailing employees' views was gathered to understand the employees' perspectives concerning minimizing the use of physical restraint. A highly respected supervisor was designated as a '*reporter on the street*,' and charged with soliciting employee feedback. The 'reporter on the street' engaged employees in conversations about the prospect of reducing the use of physical restraint. The feedback from employees, which included general feelings, reservations, concerns and suggested tools and resources, was utilized in the design of the action plan. The action plan was developed by the Executive Director of the region taking into account the feedback gathered by employees' with particular focus on providing employees support and reassurance that safety would be the top priority. The action plan was reviewed with employees by the Executive Director of the region in large group meetings.

The second component was training. It quickly became apparent that eliminating restraint to manage challenging behaviours without replacing it with another tool was not viable. The 2-h training, which was required for all employees, consisted of a lecture and PowerPoint© presentation sharing philosophical perspectives and various non-physical strategies that are useful when a client is in distress or crisis. The philosophy of supporting and comforting a client experiencing emotional distress versus controlling a client in crisis was the foundation. This training was modelled on the work of Huckshorn, who stated, that 'If you're looking at facilitating the growth or rehabilitation of kids who've already been traumatized and haven't had good role models, and you're trying to make them productive adults, you don't do that by forcing, coercing, controlling, and ruling them' (Kirkwood 2003).

In addition, extensive training consisting of lecture, demonstration and practice was provided to all employees on 'Extraordinary Blocking' techniques as an alternative to restraint. 'Extraordinary Blocking' techniques included the use of pillows, cushions, bean bags and other soft objects to support a client in crisis and protect staff. Such items are used by holding them up to lessen the impact of and/or deflect hits, kicks, slaps, etc. The training taught basic techniques and ideas, but it was up to each multidisciplinary treatment team to use creativity and identify items that worked best for each individual client. The teams' innovative approaches resulted in numerous requests for alternative protective equipment they believed would support the clients. In one situation, the employees had used a bean bag to block an aggressive client. The client was able to still scratch the employees' exposed hands while they protected them-

selves. The team problem solved and knew that they needed a soft item that was sturdier than a bean bag. During the processing of the situation, a baseball umpire's shield was suggested as a tool they needed. The shield was soft, yet sturdy and it has a convenient handle on the back that protects arms and hands.

The third component was the increased physical presence and support by the management team to the employees. This included having management personnel such as the Executive Director of the region, Clinical Administrator, Education Administrator, Residential Administrator and Case Management Administrator support in addition to the normal on-call schedule. Employees were instructed to call for assistance when clients were experiencing the very early stages of difficulties. Imminent restraints could then be avoided with the additional support to assist in deescalating the situation. Managers modelled responses to challenging situations in ways that did not include the use of physical restraints. Managers were also able to observe employees in difficult situations and give positive feedback and/or offer coaching and guidance. This schedule of additional support was available through the week and at night. At any given moment, a direct care employee could look at the on-call schedule and contact a manager for support.

The fourth component was implementing a formal system of processing each restraint. The goal of this system was to debrief with the individuals involved, including the client whenever possible. The initial processing was intended to focus on learning in order to avoid similar situations in the future and to identify what additional supports were needed. Questions such as the following were asked during debriefings with everyone who was involved in the situation: 'How did you de-escalate the situation?', 'What would you need next time to be able to effectively use 'Extraordinary Blocking?' and 'How might a similar situation be avoided in the future?' The system of processing was designed to be viewed as supportive of staff versus critical of their actions. At the beginning of each processing, a member of the administrative team would express the intent of the processing and the importance of identifying supports the employees working directly with the clients needed.

At an organization-wide level, a team of executives made up of three Executive Directors, the Director of Clinical Services, and the Chief Operating Officer, conducted a detailed examination of each incident of restraint. At monthly meeting, the committee determined if use of the restraint was warranted or unwarranted, provided feedback and requested further examination at the regional level. For instance, the feedback included environmental modifications that should be considered. At times, requests were made for follow-up actions to be taken such as consultation with other internal resources to consider alternative teaching strategies. Quarterly, the committee was joined by the CEO, a Board of Director Representative and the Quality Assurance and Training Directors to examine trends and provide guidance. The responsibility of leaders was to help guide staff through the transition from controlling patients as a way to achieve safety to partnering with patients to ensure safety (American Psychiatric Association/American Psychiatric Nursing Association/National Association of Psychiatric Health Systems 2003).

Data collection and analysis

When a restraint was utilized, the employee contacted the on-call manager immediately and filled out the appropriate documentation. The documentation was then sent to the region's Health Information Management Department and entered into a database. The on-call manager then

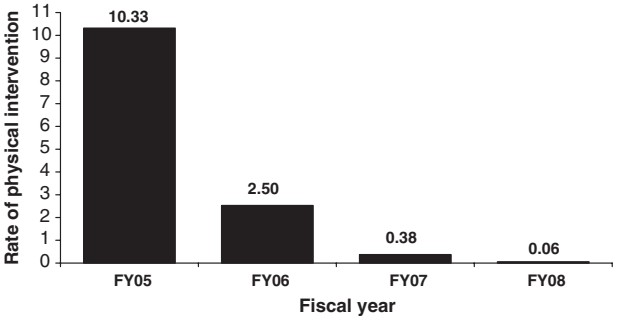

Figure 1 The rates of physical interventions per 50 000 adjusted client days during Fiscal years 2005–2008.

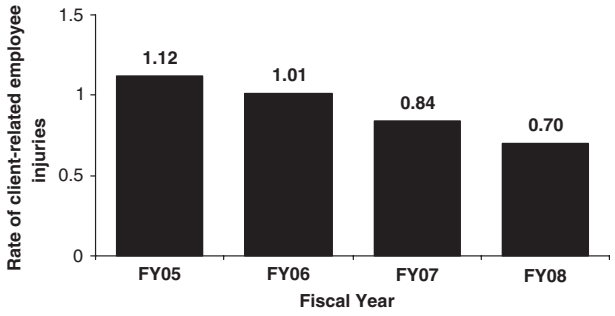

Figure 2 The rates of client-related injuries per 50 000 adjusted client days during Fiscal years 2005–2008.

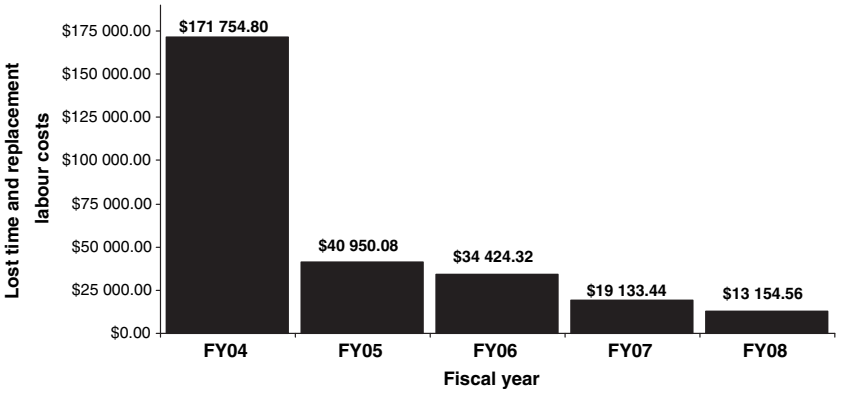

Figure 3 The total costs of lost staff time and replacement labour costs for client-related staff injuries during Fiscal years 2004–2008.

contacted the on-call administrator who was responsible for processing the incident within 24 h.

In the beginning of this initiative, when the restraint numbers were higher the data was analysed by client, employee who performed restraints, group home the restraint occurred in, classroom the restraint occurred in, time of day and day of the week in which in restraint occurred.

Results

Figure 1 illustrates the rate of restraint from 2005 to 2008. The rates of restraints, based on an approximate 50 000 adjusted client days, were 10.33, 2.50, 0.38 and 0.06 per 50 000 adjusted client days in Fiscal years 2005–2008 respectively. This was a 99.4% reduction in physical restraints from 2005 to 2008. Employee injuries from clients were 1.12, 1.01, 0.84 and 0.70 per 50 000 adjusted client days in Fiscal years 2005–2008 respectively. This was a reduction of 37.7% (See Figure 2). The salary and replacement costs for employee lost time were $171 754.80, $40 950.08, $34 424.32, $19 133.44 and $13 254.56 from 2004 to 2008 respectively. This was a 93% reduction in expenses from client induced employee injuries (see Figure 3).

Discussion

The four-component programme almost eliminated physical restraint, reduced worker injuries and worked injury-related costs substantially. This reduction in the frequency of physical restraint is similar to results accomplished by other organizations. For example, the Lakeside Treatment and Learning Center reduced the use of restraint and seclusion by 70% over a 4-year period (Fox 2003) and between 1998 and 2001, Holston United Methodist Home for Children reduced their number of physical restraints by 93% (Mrock & Davis as cited in Bullard *et al*. 2003). Employee injuries, as they relate to an initiative to minimize physical restraint, have not been previously reported, hence, the finding that intervention to reduce restraint may also result in reduced staff injuries and related costs is a new contribution to this literature.

The intervention included four components and many other organizational changes. Hence, it is difficult to identify the specific action(s) taken that actually contributed to such dramatic results. Additionally, the Hawthorne Effect, which suggests the act of examining an issue and any form of change may influence the phenomenon observed, may also account for some or all of the changes (Leadbetter & Budlong 2003). This initiative lacked an experimental research design that would allow a clear conclusion of what caused the observed changes. Future research should address this issue.

This success could be replicated in other behavioural healthcare organizations. First, there should be participation from top level management and every employee. Second, it is critical to promote the philosophy of comfort and support versus control. Third, communicating the plan to all employees, providing alternative treatment strategies and training to support clients and employees are vital. Last, collecting and reviewing progress made on the initiative and sharing and celebrating successes with others for learning and inspiration are integral factors that contributed to the initiatives success.

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